

REMARKS

Claims 9, 11-13, and 16-18 are currently pending in the subject application. Claim 11 has been amended herein to correct a minor informality. Claims 1-8 have been cancelled herein in view of the previous restriction requirement. Favorable reconsideration in light of the amendments and remarks which follow is respectfully requested.

The Claim Objection

Claim 11 has been objected to under 37 C.F.R. 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Claim 11 has been amended herein to correct this minor informality and accordingly, this objection should be withdrawn.

The Obviousness Rejections

Claims 9, 11, and 16 have been rejected under 35 U.S.C. §103(a) over Liang et al. (US 6,355,962 B1) in view of Huang (US 5,378,649) and Fang (US 6,667,511). Claims 12 and 13 have been rejected under 35 U.S.C. §103(a) over Liang et al. in view of Huang and Fang and further in view of Reisinger (US 6,137,718). Claims 17 and 18 have been rejected under 35 U.S.C. §103(a) over Liang et al. in view of Huang and Fang.

To reject claims in an application under §103, an examiner must establish a *prima facie* case of obviousness, which requires that the prior art reference (or references when combined) must teach or suggest all the claim limitations. See MPEP §706.02(j). Liang et al., Huang and Fang, alone and/or in combination, fail to teach or suggest all of the claim limitations. Additionally, Reisinger fails to make up for the deficiencies of Liang et al., Huang and Fang.

In particular, Liang et al., Huang, and Fang, alone and/or in combination, do not teach or suggest heavily doping source and drain regions for the electrostatic discharge

protection transistors with the spacers in place and without masking the other transistors as recited in independent claims 9, 17 and 18. The Office Action contends “Liang et al. disclose[s] that heavy (n+) doping is done with the spacers in place to form source/drain regions (34) (Figure 1E) (Col. 3, lines 7-9) for ESD transistors without masking other transistors in the region.” (See Office Action dated Apr. 8, 2004, pg. 3). Applicants respectfully disagree. Liang et al. relates to formation of a semiconductor device with a counter doped halo region for the source region with drain halo regions. (See col. 1, ln. 62-65). Liang et al. discloses forming spacers on the sidewalls of the gate electrode stacks (see col. 2, ln. 55-56), and then forming deep N+ doped source/drain regions 34 in P-well 16. (See col. 5, ln. 7-9). However, Liang et al. is silent regarding heavily doping without masking the other transistors. Thus, Liang et al. relates to heavily doping source and drain regions, but fails to teach or suggest heavily doping source and drain regions for the electrostatic discharge protection transistors without masking the other transistors.

Additionally, Huang and Fang fail to make up for the aforementioned deficiencies of Liang et al. with respect to the subject claims. Huang relates to forming metal lines with smaller line pitches than is possible using conventional photolithographic single coating processes. (See abstract). Moreover, Fang relates to forming a NAND-type flash memory device including forming a stacked gate flash memory structure containing an interpoly dielectric layer for one or more flash memory cells in a core region. (See abstract). Therefore, Liang et al., Huang, and Fang fail to teach or suggest all of the claim limitations of applicants’ claimed invention.

Furthermore, Reisinger does not make up for the deficiencies of Liang et al., Huang, and Fang. Reisinger merely relates to employing a dielectric triple layer having two silicon oxide layers separated by a silicon nitride layer to increase storage density in a memory cell. (See abstract). Therefore, Reisinger fails to teach or suggest heavily doping source and drain regions for the electrostatic discharge protection transistors

with the spacers in place and without masking the other transistors as recited in independent claims 9, 17, and 18.

Applicants' invention provides benefits over prior art methods since the masking step prior to heavy doping is eliminated. Thus, applicants' claimed methods reduce costs associated with the prior art since the masking step is not performed.

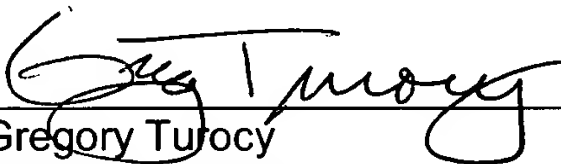
Accordingly, withdrawal of these rejections and allowance of claims 9, 17, and 18 (and claims 11-13 and 16 which depend therefrom) is respectfully requested.

Should the Examiner believe that a telephone interview would be helpful to expedite favorable prosecution, the Examiner is invited to contact Applicants' undersigned attorney at the telephone number listed below.

In the event any fees are due in connection with the filing of this document, the Commissioner is authorized to charge those fees to our Deposit Account No. 50-1063.

Respectfully submitted,

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